to the wards and rooms, in order to secure a general temperature of seventy degrees throughout. Thus the air is not rarified, expanded, or dried, to a degree that interferes with healthfulness and comfort.

16. This system does not require registers to control the temperature of the room by closing and unclosing them. The amount of air delivered over each radiating block is warmed to the temperature there required, and as the volume of the air delivered is uniform and constant, thorough ventilation is obtained. Registers in the wards of a hospital would be likely to be used to close off the flow of air if it was too warm, that being easier done than to give information to the engineer having control of the heating blocks. Registers are used in the offices and residences of the officers.

17. It is possible to determine the exact amount of coal necessary to raise a given amount of atmosphere one degree, and this gives the key to the necessary amount of coal to be burned in the steam boilers to raise the whole quantity of air introduced to any desired temperature. The engineer by observing the temperature of the external atmosphere, and knowing the volume of air delivered, can, with sufficient accuracy, supply the necessary amount of heat.

18. To illustrate: The cubic capacity of the wards and rooms of this asylum is, in round numbers, about 5,000,000 feet. Five million cubic feet of air sent in by the fans per hour night and day. Twelve pounds of coal will raise this atmosphere one degree per hour. At this writing the average outside temperature for the past twenty-four hours has been ten degrees below zero. The temperature of the wards has been maintained at from seventy to seventy-two, and we have burned 8 tons and 1,280 pounds of coal, an average of 720 pounds per hour; the actual number of occupants 722.

DESCRIPTION OF FAN.

The fan and its support are of iron, the casing of wood;